PROVINCE OF SASKATCHEWAN

10-11

PLAN FOR 2010-11

SASKATCHEWAN
WATERSHED AUTHORITY

PLAN FOR 2010-11

Statement from the Minister

I am pleased to present the Saskatchewan Watershed Authority's Plan for the upcoming year.

As part of our Government's vision for a secure and prosperous Saskatchewan, the Saskatchewan Watershed Authority leads in the management of the province's water resources to provide reliable water supplies and protect water quality. It also maintains the safe operation of the province's vital water infrastructure. This Plan for 2010-11 provides a summary of the steps the Saskatchewan Watershed Authority will take to ensure our water provides economic, environmental, and social benefits for Saskatchewan people.

The Saskatchewan Watershed Authority continues to examine its programs and services to ensure the most effective and efficient delivery possible.

I will report on the progress made toward this Plan, within the financial parameters provided to the Authority, in the Saskatchewan Watershed Authority's annual report.

Honourable Nancy Heppner
Minister Responsible for Saskatchewan Watershed Authority

Response to Government Direction

Plans for 2010-11 align with Government's **vision for a secure and prosperous Saskatchewan, leading the country in economic and population growth, while providing opportunity for a high quality of life for all**. Government's vision, goals, and priorities for the upcoming year are described in the *Government Direction for 2010-11: Balanced. Forward-Looking. Responsible.*

Government's Plan and Budget for 2010-11 are about finding balance: responsibly managing expenditures, ensuring a solid revenue base, minimizing debt levels, and ensuring everyone can benefit from the province's economic prosperity.

To maintain the province's economic momentum, steps need to be taken to slow the growth in government expenditures. Direction has been provided to find ways to improve the effectiveness and efficiency of government's programs and services, to ensure the best use of public funds. Efforts will focus on responsible financial management and innovative solutions to improve services to the public while reducing government's overall footprint.

Similar to the plans presented last year, the Plan for 2010-11 communicates a high-level framework for the Authority's key activities and identifies how the Authority works to support Government's goals and priorities.

Mission Statement

The Saskatchewan Watershed Authority leads management of the province's water resources to ensure safe drinking water sources and reliable water supplies for economic, environmental, and social benefits for Saskatchewan people.

Strategies and Actions

Government Goal – Economic Growth

Sustain Economic Growth for the benefit of Saskatchewan people, ensuring the economy is ready for growth and positioning Saskatchewan to meet the challenges of economic and population growth and development.

Strategy	Key 2010-11 Actions
Ensure water supplies are sustainably used and allocated to meet the needs of a growing economy	• Continue work on the water use component of the Water Availability Study which will provide critical information about water use in water-short areas of the province. • Deliver the Provincial Toilet Replacement Rebate Program. • Continue the five-year program to develop reservoir operating plans for all Authority reservoirs by completing operating plans for five reservoirs.
Ensure water supply information is available and understood to meet the needs of a growing economy	• Operate, with Canada, the 300 station federal/provincial hydrometric network. • Complete the second year of a multi-year Water Availability Study, a $7.5 million project to develop the information needed to support sustainable water resource decisions that can address economic growth and adjust to changes in our water supply due to climate variability. • Review water quantity and quality conditions of transboundary streams. • Collect and assess water quality data from the critical sites related to Authority activities.
Develop and rehabilitate Authority-owned water management infrastructure to support economic growth	• Continue work towards the transfer of Qu'Appelle Valley water control structures from Agriculture and Agri-Food Canada to the Authority once appropriate financial compensation is negotiated and First Nations' flood claims are settled. • Analyze the merits, feasibility, and implications of taking transfer of all or a portion of the federally-owned dams in southwest Saskatchewan. • Continue to work with local governments and stakeholders to develop recommendations to Government on how to proceed with improvement to or replacement of the Upper Qu'Appelle Conveyance System. • Undertake rehabilitation of priority works, including the following: ~ construct a new control structure at the outlet of Makwa Lake; ~ complete designs and obtain regulatory approval for a fishway at Katepwa weir; ~ complete work associated with dam abutment slope stabilization at Theodore Dam; ~ repair and armour upstream slope of Zelma Dam; and, ~ complete repairs to Rafferty Dam to resolve seepage problem.

Strategy	Key 2010-11 Actions
Work co-operatively with provincial, national, and international governments to ensure effective water management in Saskatchewan	• Collaborate with the Western Water Stewardship Council and the Council of the Federation partners on joint initiatives relating to water. • Develop a Drought and Excessive Moisture Preparedness Plan to address climate change through an interprovincial framework with support from the Western Water Stewardship Council. • Ensure all obligations under transboundary water sharing agreements, including the Prairie Provinces Water Board, are met. • Represent the province on the Canadian Council of Ministers of the Environment Water Agenda Development Committee.

Government Goal – Security

Secure Saskatchewan as a safe place to live and raise a family where people are confident in their future, ensuring the people of Saskatchewan benefit from the growing economy.

Strategy	Key 2010-11 Actions
Work with communities to identify potential water threats and ensure protection of our water resources	• In partnership with the Ministry of Health and the corresponding regional health authorities, undertake risk assessments on community water supplies and develop recommendations to minimize risks. • Continue community-based watershed planning, including the completion of the Upper Souris Watershed Source Water Protection Plan. • Coordinate the implementation of Agri-Environmental Group Plans and Source Water Protection Plans in partnership with watershed groups and Ministry of Agriculture. • Provide financial and technical support to watershed groups for Source Water Protection Plan implementation activities. • Assist watershed groups to leverage additional funding for implementation of Source Water Protection Plans.
Ensure Authority-owned water structures are safe and maintained	• Undertake dam safety activities to assess and manage the safety of Authority works, including the following: ~ Undertake internal dam safety reviews at five Authority dams; ~ Finalize the draft Emergency Preparedness Plan and draft Emergency Response Plan for Gardiner Dam; and, ~ Draft Emergency Preparedness Plans and Emergency Response Plans for Rafferty, Alameda and Qu'Appelle River Dams.
Reduce risk of flood damages in the province	• Forecast flood risk and notify potentially impacted communities of flood risk. • Provide emergency advice on flood protection measures. • Establish peak water level estimates for building elevations around lakes and water courses. • Provide long-term flood protection for communities around Fishing Lake by obtaining approvals to have the emergency berms converted to long-term berms. • Undertake the necessary engineering and environmental investigations to determine the feasibility of converting the emergency berms at Waldsea Lake to long term berms. • Implement plan to address impact of drainage on flooding at Lenore Lake and Fishing Lake.

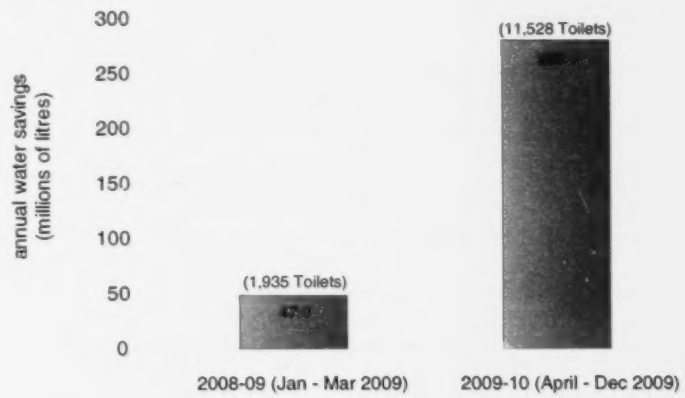
Strategy	Key 2010-11 Actions
Manage water to meet responsibilities for aquatic ecosystem and fish habitat needs	• Continue work to determine in-stream flow requirements on priority water control structures. • Evaluate the impacts of beneficial management practices on water quality through the Watershed Evaluation of Best Agricultural Management Practices (WEBs) study. • Continue to work on the SaskPower, Fisheries and Oceans Canada, Ministry of Environment, and Watershed Authority Fisheries Management Committee to determine and mitigate impacts of SaskPower operations on aquatic ecosystems.

Government Goal – Promises

Keep Government's Promises and fulfill the commitments of the election, operating with integrity and transparency, accountable to the people of Saskatchewan.

Strategy	Key 2010-11 Actions
Improve the effectiveness and efficiency of the Authority's programs and services so as to ensure the best use of public funds	• Continue the management practice of assessment and continuous improvement to ensure a robust, objective, and multi-year assessment function. • Review Watershed Planning and Plan Implementation. • Complete an assessment of the Reservoir Development Area Regulations. • In consultation with Ministry of Environment, continue development of new water allocation, compliance, and drainage policies. • In consultation with Ministry of Environment, continue development of new water management legislation to provide appropriate tools to meet water management objectives while minimizing regulatory issues.
Work toward reconciliation in water management while meeting legal responsibilities for consultation and accommodation regarding First Nation and Métis communities	• Finalize agreements necessary to assist the Government of Canada to achieve a long term settlement of the First Nations' flood claims in the Qu'Appelle Valley. • Finalize Water Management Agreements with Qu'Appelle Valley First Nations to advance reconciliation with the First Nations and address the regulatory gap on reserve. • Consult with First Nation and Métis communities where the Authority is planning work that may impact Aboriginal or Treaty Rights.
Attract, retain and build professional staff by supporting employee growth and development and increasing employee engagement	• Develop and implement a Human Resource Procedures Manual for key functions considering best practices to address and ensure capture and transfer of knowledge required due to retirements expected in the next three years. • Introduce a revised performance management system that recognizes individual performance and staff development activities. • Identify needs, implement and support staff training, skills enhancement, and career development programs as part of the Human Resource Management Strategy and to support Corporate Succession Strategy initiatives. • Implement a Workplace Incident Program with a focus on maintaining a culture of mutual respect.

Performance Measures

Measure	Baseline / Trend Line Information
Toilets replaced and estimated annual water savings due to Provincial Toilet Replacement Rebate Program	

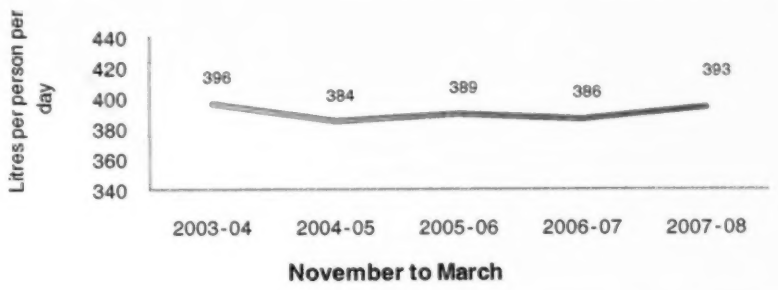
Measure Description

Toilets are the largest consumer of water in a household, and the widespread transition to low flow toilets supports sustainable water use. The Provincial Toilet Replacement Rebate Program, funded through Go Green Saskatchewan, began in January 2009 and provides a $50 rebate for the replacement of an older, 13 litre or greater toilet with a low-flow model. The water savings measure estimates the annual savings due to toilet replacements that received a rebate in the given fiscal year. It is important to note that the one-time investment in a new toilet will continue to provide water savings as long as that toilet is in place. Reduced water use also results in a reduction of CO_2 emissions due to reduced pumping requirements. In 2009, the program supported the replacement of over 13,000 toilets in the province, which will provide an estimated water savings of over 327 million of litres of water per year (47 million litres from toilets replaced in fiscal year 2008-09, and 280 million litres from toilets replaced in 2009-10).

The measure is calculated on the basis of the average difference between the old toilet flush volume and the new low-flow toilet flush volume[1] and the average number of flushes per toilet per day.[2]

This measure supports the following strategy: Ensure water supplies are sustainably used and allocated to meet the needs of a growing economy.

1. *10.4 litres per flush (estimated from data submitted with rebate applications in 2009).*
2. *6.4 flushes per day per toilet (calculation based on data sourced from: Amy Vickers (2001). Handbook of Water Use and Conservation: Homes, Landscapes, Businesses, Industries and Farms. Amherst: Waterplow Press; Stats Canada (2006); and, Saskatchewan MLS listings (February 2010)).*

Measure	Baseline / Trend Line Information
Winter municipal per capita water consumption[1]	

Measure Description

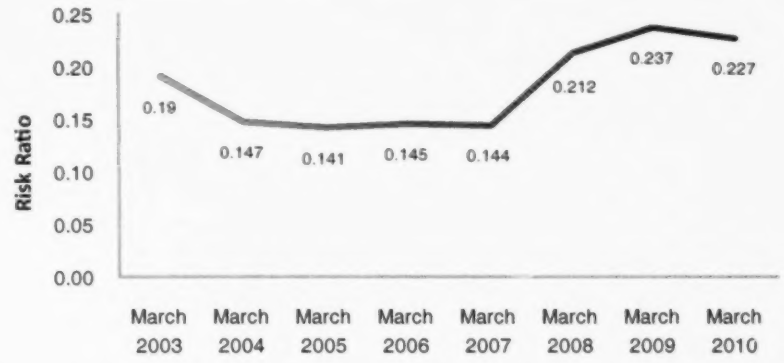
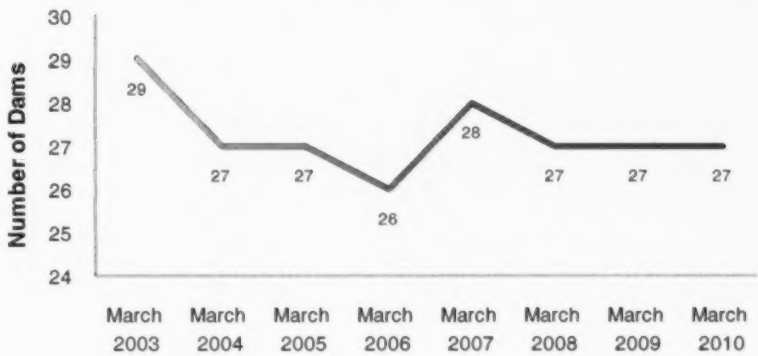
This measure is an indicator of water conservation specifically as it relates to municipal water use, which includes use in the home, in businesses, and for public services such as fire fighting, road building, public pools, and rinks. It also includes water lost due to system leakage. The annual consumption measure is not included in this year's Plan, as it is highly influenced by weather, with irrigation demands for lawn and garden watering varying significantly between wet and dry years. Rather, only the winter consumption measure is presented as it more clearly shows trends in municipal water use.

Residential water conservation is a critical component of overall municipal water conservation. In 2006, residential water use in Saskatchewan accounted for an estimated 44 per cent of the total annual municipal use.[2] Toilets alone account for an estimated 30 per cent of in-home residential use.[3] The Authority's current water conservation initiatives are focused on promoting residential conservation practices and should directly influence this measure. The Authority promotes conversion to low-flow toilets through the Provincial Toilet Replacement Rebate Program and raises awareness of additional water conservation opportunities through direct mailouts and online resources such as the family water use calculator. As the conservation awareness initiatives and the Rebate Program were initiated in 2007-08 and 2008-09 respectively, it is projected that their influence will not be evident in the municipal water use numbers for several years. It should be noted that other water conservation initiatives, outside of the Authority's programs, influence in-home water use.

Also, because of the significant portion of non-residential water use included in this overall municipal measure, the impact of residential water conservation could be exaggerated or masked due to decreased or increased consumption in other areas of municipal use. However, in the interest of sustainable water use, if municipal water use rates as a whole do not begin to decrease within the next five years, it will be critical for the Authority to examine what other types of municipal water consumption are maintaining or increasing the usage rates and address these influences.

This measure supports the following strategy: Ensure water supplies are sustainably used and allocated to meet the needs of a growing economy.

1. *Data are collected on a calendar year basis. The 2008-09 data will not be available until July 2010.*
2. *Environment Canada. 2006. "Municipal Water Use 2006 Summary Tables." Accessed at http://www.ec.gc.ca/eau-water/default.asp?lang=En&n=851B096C-1#sub2 on February 18, 2010.*
3. *Based on toilets accounting for an estimated 30 per cent of indoor usage. Source: Environment Canada. "Water Use in the Home." Accessed at http://ec.gc.ca/eau-water/default.asp?lang=En&n=851B096C-1#sub2 on February 18, 2010.*

Measure	Baseline / Trend Line Information
Risk associated with water management infrastructure	
Number of dams requiring upgrades to meet safety and operational criteria	

Measure Description

The first measure gauges the Authority's progress in upgrading its infrastructure to acceptable standards and the overall risk associated with the province's water management infrastructure, including dams and water conveyance works. As an intermediate outcome measure, the Authority uses a ratio of the assessed risk to the total possible risk to establish targets and to measure progress in reducing risk associated with its infrastructure. Risk, defined as the likelihood of a failure multiplied by the consequences of a failure, has been assessed in relative values. A lower ratio indicates safer infrastructure, with a ratio of zero indicating no current assessed risk. Numerically the risk ratio can be expressed as:
Risk Ratio = $\sum$ Assessed Current Risk / $\sum$ Total Possible Risk.

The risk ratio increase in 2008 and 2009 was primarily due to the discovery of mechanical issues with the spillway gates at Rafferty and Alameda Dams. In addition, independent dam safety reviews identified underslab drainage issues at Gardiner Dam spillway and the outlet works at the Qu'Appelle River Dam. While the Rafferty and Alameda dam spillway gate issues have been largely resolved, the risk ratio was not reduced in 2009-10 as much as had been targeted. This owed to the following:

- replacement of the Makwa Lake Control Structure was deferred for a second year owing to the inability to secure needed regulatory approvals;
- abnormal seepage appeared through the left abutment of Rafferty Dam, resolution of which could only be partially addressed prior to winter freeze-up;
- abnormal seepage conditions appeared at the canal outlet works at Brightwater Reservoir; and,
- the physical condition of both Summercove and Zelma Dams deteriorated over the year.

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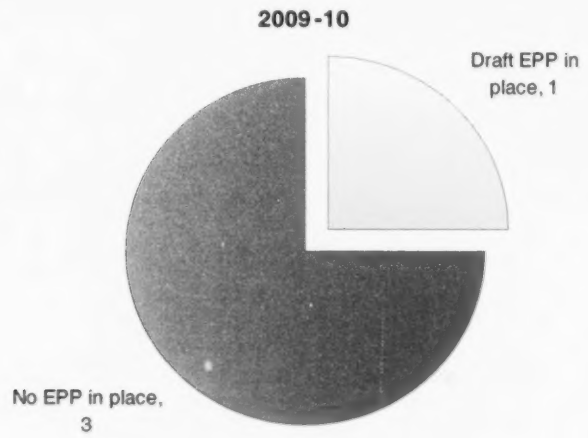
The second measure quantifies the number of Authority dams which require upgrades to meet the provisions of the Dam Safety Guidelines (2007) published by the Canadian Dam Association. The Authority currently owns 45 major dams and, like all provincial governments and major utilities across Canada, manages its works generally in accordance with these Guidelines. Depending upon the dam, a failure could have significant economic and safety consequences. However, unlike the risk ratio measure, this measure does not indicate the severity of the identified deficiencies. This measure is useful in gauging progress made over time to reduce the number of deficient dams. As may be noted by the performance measure values of the past eight years, no real progress has been achieved in this respect. Reducing this number will require increased investment in dam maintenance and rehabilitation.

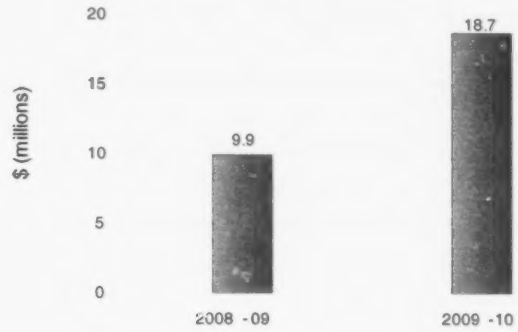
These measures are of interest to Government as the safety of dams and the operational capability of water conveyance works are fundamental to public safety and to dependable water supplies to support the economy. Upgrades require significant investments and will therefore be made over a number of years. These measures support the following strategy: Develop and rehabilitate Authority-owned water management infrastructure to support economic growth.

Measure	Baseline / Trend Line Information
Number of required Emergency Preparedness Plans (EPP) in place and current	

Measure Description

In the event of an emergency, a quick and knowledgeable response to the situation can save lives, reconstruction costs, and limit the interruption of service to clients. This is a measure of the number of required Plans that are in place and current. The Authority's Dam Safety Policy indicates that the Authority's four major structures require Emergency Preparedness Plans. Only Gardiner Dam has an Emergency Preparedness Plan in place; it required significant revision, however, and a new draft was completed in the 2009-10 fiscal year. In the 2010-11 fiscal year, the Authority intends to complete the Emergency Preparedness Plan for Gardiner Dam and complete drafts of the remaining three Plans.

This measure supports the following strategy: Ensure Authority-owned water structures are safe and maintained.

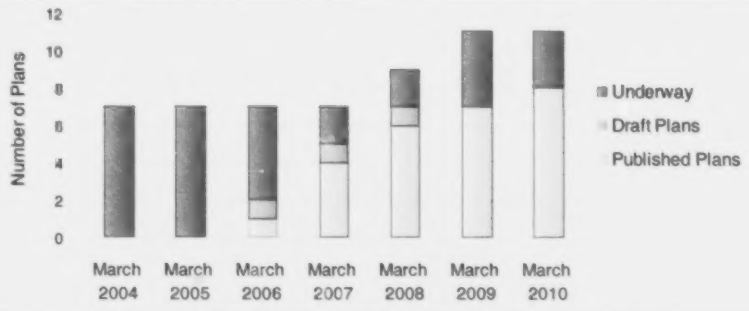
Measure	Baseline / Trend Line Information
Total funds directed to water supply infrastructure upgrades with support of Rural Water Quality Reports	

Measure Description

Watershed Authority staff conduct water quality investigations and subsequently develop Rural Water Quality Reports that provide communities with information concerning their drinking water supplies and what can be done to improve safety of the water. In many cases, community infrastructure upgrades are recommended. Communities use the reports to support a funding proposal for both federal and provincial funding to invest in infrastructure, at an equal cost share with the communities. The investment in infrastructure upon presentation of a Report is one indication of the quality of the report.

This measure tracks the total funds from federal, provincial, and municipal sources directed to infrastructure for communities with Rural Water Quality Reports. The 2008-09 funding was directed to infrastructure upgrades in Hepburn, and the 2009-10 funding was directed to Pilot Butte. It is expected that the dollars invested will be greatest in the first number of years, as the highest priority communities are being addressed first, and these communities will likely have the greatest infrastructure needs.

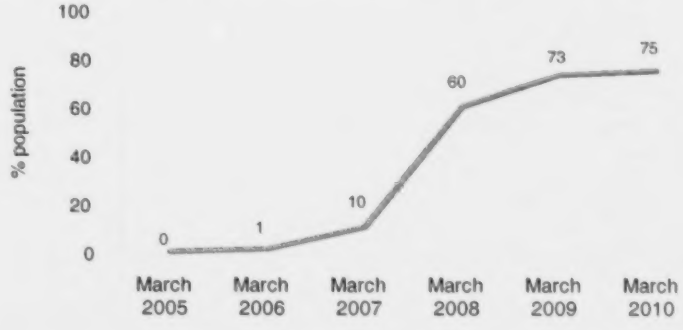
This measure supports the following strategy: Work with communities to identify potential water threats and ensure protection of our water resources.

Measure	Baseline / Trend Line Information
Number of watershed and aquifer plans under development, in draft, and published	

Measure Description

This measure is of interest to Government as an indicator of progress toward source water protection, supporting adequate and quality water supplies. Local advisory committee representatives develop watershed or aquifer plans, with watershed plans directed at management of surface water and aquifer plans directed at groundwater. Completed plans set water management priorities and identify emerging water issues. The Authority leads the planning process, directly influencing this measure. Originally the Authority initiated seven plans and as plans were completed and staff became available additional planning processes were initiated. The measure illustrates that the first completed plans occurred in year three, and the numbers reflect that planning processes are consistently coming to completion.

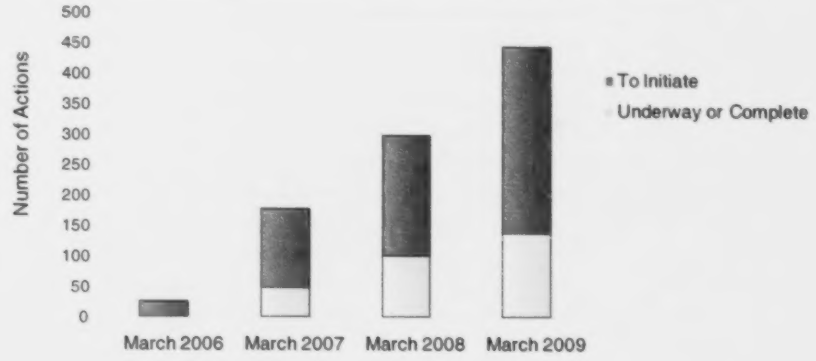
This measure supports the following strategy: Work with communities to identify potential water threats and ensure protection of our water resources.

Measure	Baseline / Trend Line Information
Proportion of provincial population covered by a completed watershed source water protection plan	

Measure Description

As with the measure above, this measure is of interest to Government as an indicator of progress toward source water protection. This measure, however, provides some meaningful context to the number of plans by adding the percentage of the population covered. The measure indicates that the Authority has targeted early planning efforts at areas of highest population, and that the majority of the province's population lives in an area where a planning process has been completed. Population data is derived from 2006 census data.

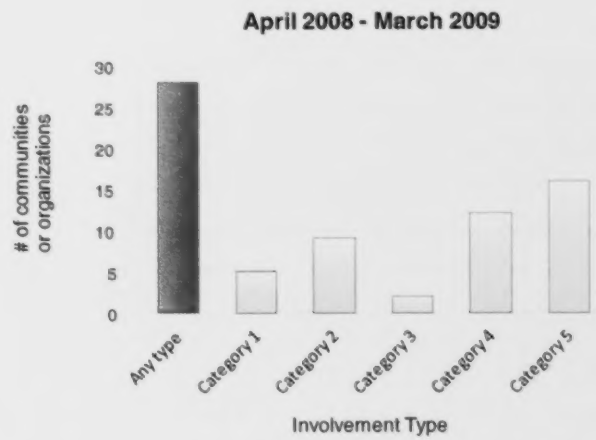
This measure supports the following strategy: Work with communities to identify potential water threats and ensure protection of our water resources.

Measure	Baseline / Trend Line Information
Total number of watershed and aquifer plan key actions underway or complete in province	

Measure Description

This measure is of interest to government as an indicator of progress toward source water protection. Watershed and aquifer plans identify key actions needed to protect source water. Each key action specifies the organization(s) responsible for implementation. Local implementation committees lead or influence others to undertake implementation of actions. The Watershed Authority provides funding and technical advice to the local implementation committees, influencing implementation. As actions are undertaken, the degree of protection of source waters within the watersheds and aquifers is expected to increase and water threats are minimized. This measure illustrates the number of key actions underway or complete. Since the first plan was completed in 2006, close to 150 source water protection actions have been undertaken within the planning areas. As new plans are completed, additional actions are identified, thus the total number of actions has been increasing over time.

This measure supports the following strategy: Work with communities to identify potential water threats and ensure protection of our water resources.

Measure	Baseline / Trend Line Information
Number of First Nation and Métis communities or organizations with whom the Authority is involved	

Measure Description

First Nation and Métis interests in water availability and quality are continuing to grow and may result in conflicts over use, especially in areas with water shortages. Proactive relationship building will help reduce future conflicts and contribute toward proactive water management alliances. The number of communities and/or government bodies with whom the Authority, at a minimum, has a two-way dialogue, is a simple measure of the Authority's efforts to build relationships with First Nation and Métis people. For this measure the total number of communities with whom the Authority is directly involved is presented along with a break down according to categories of involvement as follows:

Any type: This is the total number of First Nation and Métis communities or organizations with whom the Authority is involved in any of the categories. As the Authority may have more than one category of involvement with any given community or organization, this does not represent a sum of the five broken out categories.

Category 1 Formal Province – First Nation/Métis agreements or negotiations: discussions underway or agreement in place.

Category 2 Formal consultations (activities specific to legal duty to consult requirements).

Category 3 Advisory board or committee participation (watershed/aquifer planning or infrastructure operation): representation on Authority-led planning or advisory committees.

Category 4 Community-based projects/initiatives: preliminary discussions, under development or already in place; Authority – First Nation/Métis projects.

Category 5 Dialogue/information exchange/relationship-building: Informal discussions with community/organization representatives, including feedback received on Authority initiatives.

The 2008-09 data show that the Authority is directly involved with 28 First Nation and Métis communities or organizations, with the majority of involvement falling in the category of dialogue, information exchange, or relationship-building activities. This is a positive picture, as these types of informal relationships support our ability to engage positively in more complex arrangements. The Authority would like to grow the overall numbers, paying particular attention to activities that involve First Nation or Métis communities and organizations in advisory-type roles (Category 3).

This measure supports the following strategy: Work toward reconciliation in water management while meeting legal responsibilities for consultation and accommodation regarding First Nation and Métis communities.

Financial Summary

Highlights of Appropriation and Expense 2010-11

2010-11 Estimates	(in thousands of dollars)
Operations	4,069
Capital	345
Total Appropriation	**4,414**
Capital Asset Acquisitions	-
Capital Asset Amortization	-
Total Expense	**4,414**
FTE Staff Complement	**181.25**

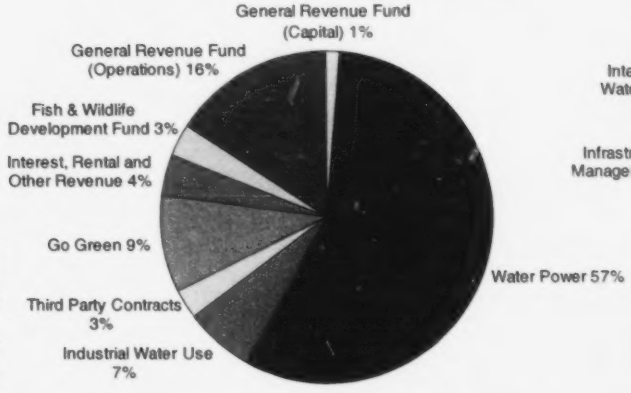
A breakdown of the Authority's 2010-11 budgeted revenues and expenditures by major area is provided below:

Revenue	(in thousands of dollars)
Government of Saskatchewan General Revenue Fund	4,414
Fish and Wildlife Development Fund	828
Water Revenue	16,409
Contract Revenue	750
Other	1,020
Go Green	2,445
Total Revenue	**25,866**

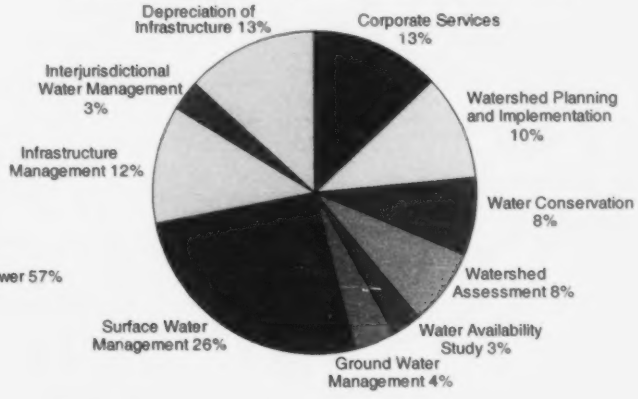
Highlights of Appropriation and Expense 2010-11

Expenditures	(in thousands of dollars)
Corporate services	3,894
Watershed planning	922
Watershed monitoring & assessment	2,427
Stewardship projects & administration	2,435
Water Availability Study	900
Go Green initiatives – toilet replacement rebate program	2,445
Interjurisdictional water management & administration	938
Regional services	5,959
Groundwater management	1,317
Hydrology services	2,173
Infrastructure management	3,741
Interest	161
Depreciation	4,150
Total Expenditures	**31,462**
Deficit for the year	**5,596**

Watershed Authority Budgeted Revenue


General Revenue Fund (Capital) 1%
General Revenue Fund (Operations) 16%
Fish & Wildlife Development Fund 3%
Interest, Rental and Other Revenue 4%
Go Green 9%
Third Party Contracts 3%
Industrial Water Use 7%
Water Power 57%

Watershed Authority Budgeted Expenditures



HIGHLIGHTS

The following are highlights of the work the Saskatchewan Watershed Authority plans for the 2010-11 fiscal year:

- Building on the 2009 core services assessment with respect to their importance in achieving our mandate, the Authority will continue a program of assessment and continuous improvement including:
  - Review of Watershed Planning and Plan Implementation Programs; and,
  - Review and possible repeal of the Reservoir Development Area Regulations.
- Continue the multi-year $7.5 million Water Availability Study to develop essential information on surface and ground water supplies to support the growing economic, population, and recreational demands for water in Saskatchewan.
- Assist the Government of Canada to achieve a long-term settlement of the First Nations' flood claims at Pasqua and Crooked Lakes in the Qu'Appelle Valley by finalizing flood settlement agreements with Canada and First Nations as well as Water Management Agreements with the First Nations.
- In consultation with Ministry of Environment, continue development of new water management legislation to provide appropriate tools to meet water management objectives while minimizing regulatory issues.
- Continue the four-year $11 million Provincial Go Green – Toilet Replacement Rebate Program, which was recently expanded to include municipal and non-profit organizations as well as private homes and apartments.
- Provide long-term flood protection for communities around Fishing Lake by obtaining approvals to have the emergency berms converted to long-term berms.
- Continue the infrastructure rehabilitation program including construction of a new control structure for Makwa Lake, and completion of repairs at Theodore and Rafferty Dams.

For More Information

Please visit the Saskatchewan Watershed Authority's website at www.swa.ca or call (306) 694-3900 for information on our programs and services.